

Amendment to the Drawings:

Replacement FIG. 14 has been supplied.

Remarks

Upon entry of the foregoing amendment, claims 1-20 are pending in the application, with claims 1, 13, and 15 being the independent claims. Claims 21-23 have been canceled, but Applicant reserves the right to prosecute at a later date. FIG. 14 has been amended to correct an informality. Further, claims 1-2, 13, and 15 have been amended to clarify the invention. These changes are believed to introduce no new matter, and their entry is respectfully requested. Based on the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Drawing Objections

FIG. 14 has been amended per the Office Action suggestion. Accordingly, Applicant requests that the drawing objection be removed.

Claim Objection

Claims 1-2 have been amended to address the Office Action's concerns. Accordingly, Applicant requests that the claim objections be removed.

Rejections under 35 U.S.C. § 102

Claims 1, 4-6, and 10-13 stand rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 5,903,613 to Ishida (hereinafter "Ishida"). Applicant traverses this rejection based on the discussion below.

Applicant's claim 1, as amended, recites a method of processing a data signal, including:

receiving a differential data signal;
determining if said differential data signal represents a valid data word from a plurality of valid data words; and
if said differential data signal does not represent a valid data word from said plurality of valid data words, then inverting said differential data signal, producing an inverted differential data signal, and
determining if said inverted differential data signal represents a valid data word from said plurality of data words.

(See, claim 1, *emphasis added*)

Ishida does not teach each and every element of claim 1 and therefore does not anticipate claim 1. For example, Ishida does not disclose the step of *determining if said inverted differential data signal represents a valid data word from said plurality of data words*, after the [originally received] data word is checked to see if it is valid, nor does the Office Action suggest this. Accordingly, Ishida does not teach each and every feature of claim 1, and therefore, does not anticipate claim 1. Further, claims 4-6 and 10-12 depend directly or indirectly from claim 1, and therefore are allowable for the same reasons as mentioned above for claim 1, in addition to their own patentable features. Further, independent claim 13 has been amended similar to that of claim 1. Accordingly, claim 13 is allowable over Ishida for the same reasons as mentioned above for claim 1.

Accordingly, based on the discussion above, Applicant requests that the rejection under 35 U.S.C. 102(b) be reconsidered and withdrawn, and that claims 1, 4-6, and 10-13 be passed to allowance.

Rejections under 35 U.S.C. § 103

Claims 7-8, 15, and 19 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious over U.S. Patent No. 5,903,613 to Ishida (hereinafter "Ishida"). Applicant traverses this rejection based on the discussion below.

Claim 7-8 depend from amended independent claim 1. Claim 1 has been amended to include the feature of *determining if said inverted differential data signal represents a valid data word from the plurality of valid data words*. (See, claim 1) As discussed above, Ishida does not teach or suggest this feature, nor does the Office Action suggest this. Therefore Ishida does not meet the requirements of prima facie obviousness for claim 1 or its dependent claims 7-8, because it does not teach each and every feature of claim 1. (See, MPEP 2143)

Independent claim 15 has been amended so that the *error check module further determines if said inverted differential output is a valid data word from said plurality of valid data words*. (See, claim 15) As discussed above in reference to claim 1, Ishida does not teach or suggest this feature, nor does the office action suggest this. Therefore, Ishida does not meet the requirements of prima facie obviousness with regards to claim 15. (See, MPEP 2143) Claim 19 depends directly or indirectly from claim 15, and therefore is allowable over Ishida for being dependent on an allowable base claim, in addition to its own patentable features.

Accordingly, Applicant requests that the rejections of claims 7-8, 15, and 19 under 35 U.S.C. §103(a) be reconsidered and removed and that these claims be passed to allowance.

Claims 1-3, 13-14, and 16-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application No. 2004/0153945 to Takami (hereinafter "Takami") Applicant traverses based on the discussion below.

Applicant's claim 1, as amended, recites a method of processing a data signal, including:

receiving a differential data signal;

determining if said differential data signal represents a valid data word from a plurality of valid data words; and

if said differential data signal does not represent a valid data word from said plurality of valid data words, then inverting said differential data signal, producing an inverted differential data signal, *and determining if said inverted differential data signal represents a valid data word from said plurality of data words.*

(See, claim 1, *emphasis added*)

Takami does not teach each and every element of claim 1 and therefore does not render claim 1 obvious. For example, the Office Action admits that Takami does not teach or suggest the reception, and processing of a differential data signal. Accordingly, Takami also cannot possibly teach Applicant's step of *if said differential data signal does not represent a valid data word from said plurality of valid data words, then inverting said differential data signal, producing an inverted differential data signal....*, since Takami admittedly does not process differential data signals. (See, claim 1, *emphasis added*) Further, Takami does not teach or suggest the step of *determining if said inverted differential data signal represents a valid data word from said plurality of*

data words, after the [originally received] data word is checked to see if it is valid, nor does the Office Action suggest this.

Accordingly, Takami does not teach each and every feature of claim 1, and therefore, does not meet the requirements for *prima facie* obviousness. (See, MPEP 2143). Further, claims 2-3 depend directly or indirectly from claim 1, and therefore are allowable over Takami for being dependent on an allowable base claim, in addition to its own patentable features. Independent claims 13 and 15 have features that are similar to claim 1, and therefore are allowable over Takami for the same reasons as mentioned for claim 1. Claim 14 depends directly from claim 13, and therefore is allowable over Takami for being dependent on an allowable base claim, in addition to its own patentable features.

Accordingly, Applicant requests that the rejections of claims 1-3, 13-14, and 16-18 under 35 U.S.C. § 103(a) be reconsidered and removed and that these claims be passed to allowance.

At paragraph 27 of the Office Action, claims 7 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takami in view of U.S. Patent Publication No. 2004/0181734 to Saliba. Applicants traverse this rejection based on the discussion below.

Claims 7 and 9 depend from claim 1, which is allowable over Takami for the reasons mentioned above. Saliba does not cure the deficiencies of Takami, nor does the Office Action suggest this. Accordingly, claims 7 and 9 are allowable over the combination of Takami in view of Saliba, for being dependent on an allowable base claim. Accordingly, Applicant requests that the rejections of claims 7 and 9 under 35

U.S.C. 103(a) be reconsidered and removed and that these claims be passed to allowance.

At paragraph 30 of the Office Action, claims 19-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takami in view of U.S. Patent No. 6,820,232 to Kim. Applicants traverse this rejection based on the discussion below.

Claims 19-20 depend from claim 15, which is allowable over Takami for the reasons mentioned above. Kim does not cure the deficiencies of Takami, nor does the Office Action suggest this. Accordingly, claims 19-20 are allowable over the combination of Takami in view of Kim, for being dependent on an allowable base claim. Accordingly, Applicant requests that the rejections of claims 19-20 under 35 U.S.C. §103(a) be reconsidered and removed and that these claims be passed to allowance.

Based on the discussion above, Applicants request that the rejections of claim 1-20 under 35 U.S.C. §§ 102 and 103 be reconsidered and withdrawn, and that all of these claims be passed to allowance.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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